

Intermediate Prefixes in Russian*

Sergei Tatevosov
Moscow State University

1. Introduction: lexical vs. superlexical prefixes in Russian

It has been widely recognized that verbal prefixes in Slavic languages form a heterogeneous class as to their semantic and syntactic properties (e.g., Filip 1999, 2005 and elsewhere). Specifically, prefixes fall into two types, **lexical prefixes** (LPs) and **superlexical prefixes** (SLPs), or internal and external. For Russian, this distinction was established and extensively motivated in Babko-Malaya 1999, Ramchand 2004, Romanova 2004, 2006, Svenonius 2004a,b, DiSciullo, Slabakova 2005.

Inventories of SLPs identified by different authors may be slightly different, as (not exhaustively) represented in Table 1. The vast majority agree however, that the list of superlexicals includes at least inceptive *za-*, delimitative *po-* and cumulative *na-*, and in what follows I will take these prefixes as paradigmatic instances of SLPs.

<TABLE 1 AROUND HERE>

SLPs differ from LPs in a number of significant distributional and semantic properties. Semantically, SLPs express adverbial-like meanings (cf. translations in Table 1) that combine with the meaning of a verbal stem in a systematic and predictable way; LPs tend to have idiosyncratic semantics (not counting a few directional prefixes combined with motion verbs, like *vo-jti*¹ ‘come in’ and *vy-jti* ‘come out, exit’). (1)-(2) illustrate a contrast between SLPs *za-* and *po-* and corresponding LPs *za-* and *po-*:

* I am grateful to the audience at the FASL 2007 Meeting for valuable comments and suggestions. Special thanks to Asya Pereltsvaig, Anna Pazelskaya and FASL anonymous reviewers for discussion of the issues addressed in this paper and for providing me with detailed suggestions. The support from the Russian Foundation for Basic Research (grant #05-06-80258a) is gratefully acknowledged.

¹ In what follows, I represent examples from Russian using standard transliteration conventions recommended by Slavic and East European Journal. When necessary, morphophonological representations are additionally provided. While I agree completely with the FASL anonymous reviewer that the (transliterated) orthography is not a reliable source of morphological generalizations, I do not provide morphophonological representations for all the material. On the one hand, verbal prefixation addressed in this paper does not involve a large amount of morphophonology. On the other, the field keeps developing — see, e.g., recent proposals by Halle and Matushansky (2004) and Matushansky (2007) that differ from classic Jakobsonian morphophonology in a number of crucial respects. Discussing a lot of surrounding issues will take me too far from the main topic of the present paper, however.

- (1) SLPs
- | | |
|--------------------------------------|--|
| a. za -pisat' 'start writing' | b. po -pisat' 'write for a while' |
| za -begat' 'start running' | po -begat' 'run for a while' |
| za -pet' 'start singing' | po -pet' 'sing for a while' |
- (2) LPs
- | | |
|---|--------------------------------------|
| a. za -pisat' 'write down, record' | b. po -ljubit' 'fall in love' |
| za -ryt' 'dig in' | po -stroit' 'build' |
| za -stroit' 'build up' | po -dvinut' 'move' |

Unlike SLPs in (1), which invariably express inception of a process (*za*- in (1a)) or indicate that the process is temporally bounded and its duration is relatively short (*po*- in (1b)), semantic contribution of corresponding LPs in (2) can hardly be reduced to a simple and uniform meaning component.

SLPs do not affect the argument structure, never add an argument to the root verb (Romanova 2004, 2006), do not make the object obligatory (Babko-Malaya 1999, Svenonius 2004a), never change the participant relations of an original object (Ramchand 2004), and do not license unselected objects (Svenonius 2004a:236). LPs have the opposite properties. In case of multiple prefixation, SLPs occur outside LPs, never inside. Further differences between SLPs and LPs mentioned in the literature include *telicity* (Romanova 2006), *lexical restrictions* and *selection* (see Svenonius 2004a, Romanova 2004, 2006 on directed vs. non-directed motion verbs, Babko-Malaya 1999 on so-called I-roots, and Svenonius 2004a and Romanova 2004 on imperfectivity), *derivational potential* (see Svenonius 2004a and Romanova 2004 on secondary imperfectivization, Romanova 2006 on passive past participle formation and Babko-Malaya 1999 and Svenonius 2004a on nominalization), and *iteration/stacking* (DiSciullo, Slabakova 2005). For the sake of space I will not go into further details here; a few relevant issues will be addressed in sections 3-7.

There does not seem to be a general agreement about how LP/SLP distinction is syntactically represented. Olga Babko-Malaya (1999:76) in her foundational work suggests that “‘lexical’ prefixes... are adjoined to a lexical head, and ‘superlexical’ prefixes... are adjoined to a functional category.” Accordingly, she analyses sentences like *Ivan s-pel pesnju* ‘Ivan sang a song’ and *Ivan za-pel pesnju* ‘Ivan started singing a song’ as (3a-b) respectively.

- (3) a. [... [_{AspP} Ivan [_{Asp'} ASP [_{VP} a song [_{V'} [_V s-sing]]]]]]]
 b. [... [_{AspP} Ivan [_{Asp'} [_{Asp} **za**-ASP] [_{VP} a song [_{V'} [_V sing]]]]]]]

Unlike Babko-Malaya, Svenonius (2004:206) takes LPs to be essentially small clause predicates, assuming a Result head below V.

SLPs are analyzed as adverbials occupying a specifier position within the Asp[ect] projection above V. (SLPs in this system are phrases, not heads). Accordingly, LP-verbs like *za-brosit'* (*mjač v vorota*) ('into-throw a ball in the goal') involve VP-internal prefixes: [_{VP} throw [_{RP} ball [_{R'} **za-** [_{PP} in goal]]]]. SLP-verbs like *za-brosat'* ('INCEP-throw') contain VP-external prefixes in Spec, Asp: [_{AspP} [_{PP} **za-**] [_{Asp'} [_{VP} throw [_{DP} ball]]]]

For Ramchand (2004) all prefixes are heads, not maximal projections. She shares the view that LPs are R[esult] heads with Svenonius (2004a-b), but differs in what she proposes for SLPs: some SLPs (SPrefixes, in her terminology) merge as Asp heads, the rest of SLPs (her DPrefixes) are Cmlt heads that take AspP as a complement.

Romanova (2004:271-272) focuses on how SLPs are located with respect to other functional heads, *v* and Asp, concluding that all of them are above Asp, and some (e.g., delimitative *po-*) are also above *v*: [_{DlmtP} **po-** [_{VP} ... [_{AspP} ... [_{VP} ...]]]]]. A few other superlexicals (e.g., attenuative prefixes *pri-* and *pod-*), Romanova argues, merge below *v*: [_{VP} ... [_{FP} **pri-** [_{AspP} ... [_{VP} ...]]]]]. Finally, Romanova (2006:114) establishes a highly articulated structure below V, thus deriving characteristics of various subclasses of lexical prefixes.

What all these otherwise very different proposals have in common is an intuition that the observed differences between two classes of prefixes can be reduced to their different positions in a hierarchical syntactic structure, hence accounted for. All the authors agree that lexical prefixes originate VP-internally, hence their idiosyncratic meanings, sensitivity to argument structure and a bulk of other characteristics, while superlexicals attach VP-externally, and that is the reason why they occur outside LPs and possess different (if not the opposite) properties.

With this background in mind, in what follows I will argue for a more articulated hierarchical structure, whereby there is a separate projection for *intermediate prefixes* (ITMPs), distinct from LPs and SLPs. Evidence for this structure comes from the distribution of two prefixes, which pattern with neither SLPs nor LPs, namely, completive *do-* and repetitive *pere-* listed in (4a-b) and exemplifies in (5a-b).

(4) Intermediate prefixes:

- a. completive (CMP) *do-* 'complete doing sth': *do-pisat'* 'complete writing'
- b. repetitive (RPT) *pere-* 'do sth again, re-do': *pere-pisat'* 're-write'

(5) a. Vasja **do-**pisal pis'mo.
 V. CMPwrite_{PST:M} letter_{ACC}
 'Vasja completed writing the letter.'

- b. Vasja **pere**-pisal pis'mo.
 V. _{RPTWRITE_{PST:M}} letter_{ACC}
 'Vasja re-wrote the letter.'

In the literature, the repetitive *pere-* is never listed among SLPs. Furthermore, discussing examples like (8b) Babko-Malaya 1999:200-201 claims explicitly that *pere-* is a lexical prefix. The same is true of *do-* except for Ramchand 2004 who characterizes *do-* (a terminative prefix, in her terminology) as an SLP. In the subsequent sections evidence will be presented that *do-* and *pere-* are neither LPs nor SLPs and that their distribution is best accounted for on the assumption that they originate within a separate intermediate projection located above LPs but below SLPs. Below I present six arguments supporting this analysis. Also, relying on scopal facts, I will suggest that ITMPs can merge either above or below *vP*. Combining these suggestions yield structures in (6a-b).

- (6) a. [_{ExtP} SLPs [_{ItmP*} **ITMPs** [_{vP} ... [_{VP} ... LPs ...]]]]
 b. [_{ExtP} SLPs [_{vP} ... [_{ItmP*} **ITMPs** [_{VP} ... LPs ...]]]]
 where ExtP is a projection of superlexical prefixes, ItmP is a projection of intermediate prefixes, «X*» reads as 'one or more instances of X'

Before going on, I would like to make explicit three basic assumptions on which the subsequent discussion relies. First, I assume, with Ramchand 2004 and Romanova 2004, 2006 that SLPs head a functional projection (not necessarily immediately) dominating *vP*. This projection is labeled as ExtP in (6). (However, I do not see any reasons for the below analysis to be incompatible with alternative views of SLPs advocated in the literature, e.g. with Svenonius' (2004b) proposal that SLPs are maximal projections.)

Secondly, I suggest that the secondary imperfective morpheme *-yva-* /*-ivaj-* heads a functional projection, too. In what follows this projection will be labeled as AspP. As for the position of Asp with respect to other functional heads, most importantly, with respect to *v*, I assume, contrary to Romanova 2004, that the secondary imperfective *-yva-* merges above *vP*. A number of arguments for this view can be found in Pereltsvaig 2002, 2004 and Pazelskaya, Tatevosov, to appear.

Thirdly, I share the view that lexical prefixes originate VP-internally, but remain agnostic about whether they are lexical V^0 modifiers that combine with a verbal root presyntactically (Babko-Malaya 1999) or syntactic heads originating within some projection dominated by VP (Svenonius 2004a, Ramchand 2004, Romanova 2006). Presumably, below generalizations do not force us to adopt either of these two types of analysis.

With these assumptions made clear, we have everything we need to proceed to the characteristics of intermediate prefixes. The rest of the paper is organized as follows. In sections 2-7 I present my arguments for the analysis in (6) which rely on semantic characteristics of ITMPs (section 2), on multiple prefixation (section 3), stacking (section 4), aspectual selection (section 5), secondary imperfectivization (section 6), and nominalization (section 7). Finally, in section 8 I will identify the position of ITMPs with respect to *v*. Main findings of this paper are summarized in the conclusion.

2. The first argument: compositionality and argument structure

The first argument for the analysis in (6) has to do with the semantic characteristics of *do-* and *pere-* and with the argument structure of stems containing these prefixes. This argument suggests clearly that *do-* and *pere-* are not LPs, although not as clearly that they are not SLPs.

As was mentioned above, the distributive *pere-* is never identified in the literature as an SLP; the completive *do-* is only listed among SLPs in Ramchand 2004. In a systems assuming a binary LP/SLP distinction this amounts to the claim that both prefixes are LPs. But if a distinguished characteristic of LPs is that they have idiosyncratic meanings, see (1)-(2) above, *do-* and *pere-* are not LPs. Unlike LPs, these prefixes are fully compositional: *pere-* renders the meaning of repetition, while *do-* contributes the meaning of completion:

- (7) a. **do-**pisat' 'complete writing' **pere-**pisat' 'write again, re-write'
 b. **do-**myt' 'complete washing' **pere-**myt' 'wash again'
 c. **do-**otkryt' 'complete opening' **pere-**izbrat' 'elect again'

If Svenonius 2004 is right in suggesting that LPs tend to develop highly idiosyncratic meanings because they originate VP-internally (since it is VP that is a domain for idiom assignment), the fact that *do-* and *pere-* are strictly compositional not only suggests that they are distinct from LPs but also that they are external to VP.

Argument structure facts point towards the same conclusion. Comparing clear instances of SLPs and LPs, one can observe that the former but not the latter can affect argument relations established by a non-derived stem. For instance, the verbal stem *gryz-* /griz-/ 'gnaw' selects for affected, not effected objects, hence *gryzt' kost'* 'gnaw a hole' is appropriate, but **gryzt' dyru* 'gnaw a hole' is not. The delimitative verb *po-gryzt'* derived from *gryz-* with the SLP *po-* exhibits the same pattern, cf. *po-gryzt' kost'* 'gnaw a bone for a while' vs. **po-gryzt' dyru*. In contrast,

the lexical *pro-* ‘through’ creates a verb *pro-gryzt* ‘readily accepting the effected object ‘hole’: *pro-gryzt’ dyru* ‘gnaw a hole (in sth.)’.

Unlike true LPs, *do-* and *pere-* never affect the arguments structure of a verbal root. Compare (8a-b) exemplifying a non-prefixed stem *mes-* /m’ot-/ ‘sweep’ and the same stem combined with the LP *s-* ‘off’ in (9a-b) and with the completive *do-* in (10a-b):

- (8) Non-prefixed stem
- | | |
|---|---|
| a. <i>mesti list’ja</i> | b. <i>mesti dorožku</i> |
| <small>sweep_{INF} leave_{ACC:PL}</small> | <small>sweep_{INF} path_{ACC}</small> |
| lit. ‘sweep (the) leaves’ | ‘sweep a/the path’ |
- (9) Lexical prefix *s-*
- | | |
|--|---|
| a. <i>s-mesti list’ja (s dorožki)</i> | b. <i>#s-mesti dorožku</i> |
| <small>off-sweep_{INF} leave_{ACC:PL} off path_{GEN}</small> | <small>off-sweep_{INF} path_{ACC}</small> |
| ‘sweep (the) leaves (off the path)’ | ‘sweep a/the path (off sth)’ |
- (10) Prefix *do-*
- | | |
|--|--|
| a. <i>do-mesti list’ja</i> | b. <i>do-mesti dorožku</i> |
| <small>CMPsweep_{INF} leave_{ACC:PL}</small> | <small>CMPsweep_{INF} path_{ACC}</small> |
| ‘complete sweeping (the) leaves’ | ‘complete sweeping a/the path’ |

Mesti ‘sweep’ is a verb of surface contact through motion. In its non-derived form in (8a-b), *mesti* can take either a moving substance, (8a), or a contacted surface, (8b), as a direct object. Attaching the LP *s-* in (9) effectively eliminates the second possibility. In contrast, if the completive *do-* merges with a stem, as in (10), the argument structure remains intact.

Pere- shows exactly the same behavior. Take *pisat’* /p’isa-t’/ ‘write’ as an example, a creation verb which subcategorizes for an effected object. DPs denoting things that do not come to existence as a result of writing are at least awkward as the object of *pisa-* for most speakers, cf. *pisat’ pis’ma* ‘write (the) letters’ and *pisat’ diski* ‘record (the) CDs’. The LP *za-* combining with *pisa-* induces a meaning change (‘write’ → ‘record’) which reverses argument relations: ‘CDs’ in *za-pisat’ diski* ‘record the CDs’ is fine, ‘letters’ in *za-pisat’ pis’ma* ‘record the letters’ is definitely odd. Crucially, *pere-pisat’* with the repetitive *pere-* patterns with *pisat’* (^{OK}*pere-pisat’ pis’m-a* ‘re-write the letters’), not with *za-pisat’* (*pere-pisat’ diski* ‘record the CDs again’)².

Therefore, both *do-* and *pere-* resemble SLPs, not LPs, in not affecting the argument structure of a stem. To the extent that producing effect on the argument structure is a characteristic property of LPs (Svenonius 2004a, Ramchand 2004), *do-* and *pere-* should not be lexical.

² The repetitive *perepisat’* ‘write again, re-write’ is not to be confused with a homonymous verb meaning ‘copy’, which is derived by the lexical prefix *pere-*.

3. The second argument: multiple prefixation

My second argument that separates ITMPs clearly not only from LPs, but also from SLPs, comes from multiple prefixation. We know that SLPs occur outside LPs, never inside, cf. *na-za-pisyvat'* (**za-na-pisyvat'*) *kuču diskov* 'record a lot of CDs' and *po-za-pis-yvat'* (**za-po-pis-yvat'*) *diski* 'record CDs for a while' where the SLPs *na-* and *po-* attach on top of the stem containing a lexical prefix *za-*.

Given this restriction, the first thing to note about *do-* and *pere-* is that if a stem contains both an LP and an ITMP, the latter is obligatorily outside the former. *Pere-za-pisat'* 'record again' and *do-za-pisat'* 'complete recording' contrast in this respect with ungrammatical **za-pere-pisat'* and **za-do-pisat'*; the same contrast obtains with a wide variety of other stems, cf. *pere-na-vesit'* 'hang again' and **na-pere-vesit'*, as well as *do-vy-gruzit'* 'complete unloading' and **vy-do-gruzit'*.

In such examples *do-* and *pere-* look like instances of SLPs. However, if *do-* and *pere-* co-occur with genuine SLPs, their position is inside, as if they were LPs. Specifically, the delimitative *po-* attaches on top of ITMPs in examples like *po-pere-pisyvat'* 're-write sth for a while' (cf. **pere-po-pisyvat'*) and *po-do-pisyvat'* 'spend some time completing writing sth' (cf. **do-po-pisyvat'*). The same is true of other SLPs, e.g. of the cumulative *na-*, cf. *na-pere-pisyvat'* vs. **pere-na-pisyvat'* 'accumulate a quantity of sth as an outcome of re-writing' and *na-do-pisyvat'* vs. **do-na-pisyvat'* 'accumulate a quantity of sth by completing writing it'.

These observations together suggest that *do-* and *pere-* merge above LPs but below SLPs. We can expect, therefore, that if three prefixes co-occur within the same stem, an SLP, an LP and *do-* or *pere-*, we will find them in no other order than "SLP—*do-/pere*—LP". This expectation is borne out precisely, so triple prefixation is in fact one of the strongest pieces of evidence supporting intermediate status of *do-* and *pere-*. Various combinatorial options, only one of which is grammatical, are shown in (11):

- (11) a. Vasja nemnogo **po-pere-za-pisyval** diski (i ušel domoj)
 V. for.a.while DELIM-RPTbehind-write_{IPFV-PST.M} CD_{ACC.PL} and went home
 'Vasja spent some time re-recording CDs, and went home.'
 b. ... ***po-za-pere-pisyval** ...
 c. ... ***za-po-pere-pisyval** ...
 d. ... ***pere-po-za-pisyval** ...
 e. ... ***pere-za-po-pisyval** ...
 f. ... ***za-pere-po-pisyval** ...

Exactly the same distribution obtains with *po-do-za-pisyvat'* 'spend

some time completing recording CDs' where ITMP *do-* occurs in place of *pere-*; for the sake of space corresponding examples are left out.

Apparently, a possible alternative to the suggestion that *do-* and *pere-* occupy a distinct structural position is to analyze cases like *po/na-pere-pisyvat'* and *po/na-do-pisyvat'* as stacking of superlexicals, treating *do-* and *pere-* as SLPs on a par with *po-* and *na-*.³ Indeed, if SLPs in Russian can stack freely, co-occurrence of *do-* and *pere-* with superlexicals like *po-* and *na-* does not necessarily mean that these two groups of prefixes are structurally distinct. The stacking analysis faces two fundamental complications, however.

First, the stacking analysis is bound to assume that the relevant part of structure looks along the lines of (12a), and that verbs like *po-pere-pisyvat'* with the delimitative *po-* and repetitive *pere-* are represented as in (12b):

- (12) a. [_{ExtP}* SLP ... [_{vP} ... [_{VP} ... LP ...]]]]
 b. [_{ExtP} **po-** ... [_{ExtP} **pere-** ... [_{vP} ... [_V write] ...]]]]
 c. * [_{ExtP} **pere-** ... [_{ExtP} **po-** ... [_{vP} ... [_V write] ...]]]]

The problem with this analysis is that it cannot exclude on principled grounds the structure in (12c) where *po-* and *pere-* occur in the reverse order. If both prefixes are instances of SLPs, and SLPs stack freely, (12c) should not be any worse than (12b). However (12c) is not merely worse than (12b) — it is completely ungrammatical.

The second, and even more significant problem for the stacking analysis is that genuine SLPs in Russian (inceptive *za-*, delimitative *po-*, cumulative *na-*, distributive *pere-*, see Table 1) do not stack at all, contra Romanova 2004 and Svenonius 2004. Consider various possibilities in (13):

- | | |
|---|---|
| <p>(13) a. <i>igrat'</i>
 {play}{INF}
 'play'</p> <p>c. po-igrat'
 {DELIM}{play}_{INF}
 'play for a while'</p> <p>e. *za-po-igrat'
 {INCEP-DELIM}{play}_{INF}
 'za-pere-igrat'</p> <p>f. *za-pere-igrat'
 {INCEP-DISTR}{play}_{INF}
 'po-za-igrat'</p> <p>g. *po-za-igrat'
 {DELIM-INCEP}{play}_{INF}
 'po-pere-igrat'</p> | <p>b. za-igrat'
 {INCEP}{play}_{INF}
 'start playing'</p> <p>d. pere-igrat' (vse sonaty)
 {DISTR}{play}_{INF} all _{sonata}_{ACC-PL}
 'play (all the sonatas one by one)'</p> <p>*za-po-igryvat'
 {INCEP-DELIM}{play}_{IPFV-INF}
 'za-pere-igryvat'</p> <p>*za-pere-igryvat'
 {INCEP-DISTR}{play}_{IPFV-INF}
 'po-za-igryvat'</p> <p>*po-za-igryvat'
 {DELIM-INCEP}{play}_{IPFV-INF}
 'po-pere-igryvat'</p> |
|---|---|

³ I am grateful to the anonymous FASL reviewer for turning my attention to this issue.

i.	^{DELIM-DISTRplay_{INF}} * pere-za-igrat '	^{DELIM-DISTRplay_{IPFV-INF}} * pere-za-igryvat '
j.	^{DISTR-INCEPplay_{INF}} * pere-po-igrat '	^{DISTR-INCEPplay_{IPFV-INF}} * pere-po-igryvat '
k.	^{DISTR-DELIMplay_{INF}} * za-za-igrat '	^{DISTR-DELIMplay_{IPFV-INF}} * za-za-igryvat '
l.	^{INCEP-INCEPplay_{INF}} * po-po-igrat '	^{INCEP-INCEPplay-INF} * po-po-igryvat '
m.	^{DELIM-DELIMplay_{INF}} * pere-pere-igrat '	^{DELIM-DELIMplay-INF} * pere-pere-igryvat '
	^{DISTR-DISTRplay_{INF}}	^{DISTR-DISTRplay-INF}

Of 9 combinations of SLPs listed in (13e-m) none is acceptable. (Verbs in the left and right columns in (13e-m) differ as to the presence of the secondary imperfective *-yva-* /*-ivaj-*/. These examples show that imperfectivization does not improve these verbs, the only source of inappropriateness thus being the double prefixation.) Restrictions demonstrated in (13e-m) cannot be explained by the stacking analysis, unless one adopts stipulations restricting co-occurrence of SLPs in an arbitrary and non-motivated way.

Exactly the same line of reasoning rules out the possibility that multiple prefixation in Russian involves stacking of LPs, since LPs do not stack either. While both *pod-* 'under' and *za-* 'behind' can combine with the stem *pisa-* /*pisa-*/ 'write', yielding *pod-pisat* 'sign' and *za-pisat* 'record', it is definitely not the case that they can co-occur, no matter in which order, see (14a-b). Nor can they be used recursively, yielding *pod-pod-V* or *za-za-V* strings, as in (15a-b).

- | | | | |
|---------|--|----|--|
| (14) a. | * pod-za-pisat '
under-behind-write _{INF} | b. | * za-pod-pisat '
behind-under-write _{INF} |
| (15) a. | * pod-pod-pisat '
under-under-write _{INF} | b. | * za-za-pisat '
behind-behind-write _{INF} |

Therefore, given that neither SLPs nor LPs can stack, the fact that *do-* and *pere-* can co-occur with both types of prefixes, attaching below SLPs but above LPs, suggests that they occupy a distinct structural position along the lines of (6). On this analysis, a clear and consistent picture emerges:

- (16) a. SLPs and LPs do not stack
b. ITMPs merge below SLPs and above LPs⁴

⁴ An apparent counterexample to (16a) is the distributive prefix *po-* that can frequently be found on top of the cumulative *na-* (e.g. *po-na-brosat* 'DISTR-CUMthrow_{INF}') and somewhat less frequently on top of the distributive *pere-* and inceptive *za-*, *po-pere-streljat*'

Given (16), all the facts observed in this section fall out immediately. *Do-* and *pere-* attach below SLPs and above LPs because this is where their structural position is located. And as soon as *do-* and *pere-* are separated from SLPs and LPs, these groups of prefixes form natural classes as to the non-availability of stacking. I conclude, therefore, that multiple prefixation provides a strong evidence for the analysis in (6) whereby *do-* and *pere-* are regarded as distinct morphemes located in between LPs and SLPs.

4. The third argument: stacking

In the preceding section I argued that the multiple prefixation whereby the completive *do-* or repetitive *pere-* co-occur with other prefixes cannot be regarded as an instance of stacking of either SLPs or LPs, because neither true superlexicals nor true lexicals can stack.

Crucially, *do-* and *pere-*, unlike both LPs and SLPs, are recursive and *can* stack producing all the four logically possible combinations — double *do-*, double *pere-*, *do-* on top of *pere-*, and *pere-* on top of *do-*. Here come relevant examples:

- (17) a. Vasja **do-pere-pisal** stat'ju.
 V. CMP-RPTWRITE_{PST:M} paper_{ACC}
 'Vasja completed re-writing a paper.'
- b. Vasja **pere-do-pisal** stat'ju.
 V. RPT-CMPWRITE_{PST:M} paper_{ACC}
 'Again, Vasja performed a final stage of writing a paper.'
- c. Vasja **do-do-pisal** knigu.
 V. CMP-CMPWRITE_{PST:M} book_{ACC}
 {Context: V. was finish the book yesterday. However, he fell asleep before he finished. Finally, today} 'Vasja completed finishing writing a book.'

'stoot a lot (of victims) one by one', *po-za-dvigat'sja* 'start moving (about different moving objects at different locations and/or times)'. However, there are reasons to believe that here we are not dealing with a true stacking either. The distributive *po-* and other SLPs can never occur in reverse order, cf. **na-po-brat*', **pere-po-streljat*' and **za-po-dvigat'sja*; *po-* is always the outermost prefix in a verbal stem. If *po-* is a plain SLP sitting in the same position as *za-*, *na-* and *pere-*, there should not be any principled restrictions of this type. (Note that at least in cases like *po-pere-streljat*' the fact that attachment of *pere-* feeds attachment of *po-* but not vice versa cannot receive semantic explanation either, since both prefixes render the same — distributive — meaning.) These observations may suggest that there is one more projection located above ExtP and only available for the distributive *po-*. This suggestion is further supported by other observations that morphosyntactic characteristics of *po-* are sharply different from those of other SLPs, see footnote 6 below.

- d. Vasja **pere-pere-pisal** stat'ju.
 V. _{RPT-RPTWritePST:M} paper_{ACC}
 {Context: Having got a lot of suggestions from reviewers, V. re-wrote his paper and re-submitted it. After that new comments came, and} 'Vasja re-wrote his paper again.'⁵

If *do-* and *pere-* form a separate class of intermediate prefixes, then all the three groups of prefixes in Russian, LPs, ITMPs, and SLPs are natural classes with respect to staking: ITMPs do stack, others do not, as (16a) sums up. Treating *do-* and *pere-* as either LPs or SLPs will inevitably blur a clear picture that emerges under this generalization. Certainly, much further work is necessary to determine *why* ITMPs contrast with other classes of prefixes with respect to stacking and whether this characteristic is traceable to some other properties of ITMPs. While not trying to accomplish this task here, I nevertheless believe that recognizing *do-* and *pere-* as a natural class is a necessary prerequisite for future analysis.

5. The fourth argument: aspectual selection

The fourth argument relies on the observation that SLPs and ITMPs differ as to the restrictions they impose on the material they attach to. As Svenonius (2004a:237) notes, SLPs *normally* combine with the basically imperfective form». However, the distribution of SLPs provide enough evidence for a stronger claim: SLPs *always* combine with the imperfective form. ITMPs, on the other hand, are not restricted in this way: they can take either perfective or imperfective stem.

Specifically, as evidence from cumulative *na-*, delimitative *po-*, and distributive *pere-* shows, SLPs can not attach to a perfective stem, be it simplex or derived, cf. **na-[da]^P-t* 'give a lot', **po-[reši]^P-t* 'solve for a while' (^{OK}#'kill'), **pere-[kinu]^P-t* (*vse kirpiči*) 'throw (all the bricks) one by one' (^{OK}#'throw across') where SLPs attach to simplex perfective stems and **na-[ot-kry]^P-t* 'open a lot', **po-[ot-kry]^P-t* 'open for a while', **pere-[ot-kry]^P-t* (*vse dveri*) 'open (all the doors) one by one' in which SLPs are combined with a prefixed perfective stem *ot-kry-* /ot-kriv/.

In contrast, SLPs are readily available if the stem is imperfective, no matter simplex (e.g., *na-[bra]^I-t* 'take a lot', *po-[čita]^I-t* 'read for a while', *pere-[my]^I-t* (*vsju posudu*) 'wash (all the dishes) one by one') or

⁵ The anonymous FASL reviewer commented on (17c-d) that these sentences can only be acceptable as a kind of language game. While I agree completely with this judgment, the crucial fact about stacking is that corresponding examples with double LPs and SLPs are fatally bad and cannot repair even in a language game situation.

derived by secondary imperfectivization, as in *na-[dava]^l-t* ‘give a lot’, *po-[reša]^l-t* ‘solve for a while’, *pere-[kida]^l-t* ‘throw one by one’, *na-[ot-kryva]^l-t* ‘open a lot’, *po-[ot-kryva]^l-t* ‘open for a while’, *pere-[ot-kryva]^l-t* (*vse dveri*) ‘open (all the doors) one by one’. In this way, perfective stems “require” imperfectivization before combining with SLPs; imperfectivization feeds SL-prefixation, but not vice versa. (See section 5 for further discussion of secondary imperfectivization.)

In contrast, ITMPs have no principled restrictions as to the perfectivity of stems they attach to: in (a) examples in (18)-(19) they combine with imperfective stems, while in (b-c) examples — with perfective stems.

- (18) a. **do**-[pisa]^l-t’ b. **do**-[na-pisa]^p-t’ c. **do**-[za-pisa]^p-t’
CMPwrite_{INF} CMPon-write_{INF} CMPbehind-write_{INF}
 ‘complete writing’ ‘complete writing’ ‘complete recording’
- (19) a. **pere**-[pisa]^l-t’ b. **pere**-[na-pisa]^p-t’ c. **pere**-[za-pisa]^p-t’
RPTwrite_{INF} RPTon-write_{INF} RPTbehind-write_{INF}
 ‘re-write’ ‘re-write’ ‘record again’

If completive *do*- and repetitive *pere*- are SLPs, it is difficult if at all possible to explain why some SLPs only take imperfective stems, while others can take both perfective and imperfective stems. If *do*- and *pere*- occupy a separate structural position, both SLPs and ITMPs form natural classes as to their selectional properties:

- (20) a. SLPs always select for imperfective stems⁶,
 b. ITMPs impose no aspectual restrictions on their complements.

Evidently, a simple and elegant system of selectional constraints in (20) is a welcome consequence of the proposed analysis.

⁶ One prefix that violates this generalization is again the distributive *po*- which readily attach to perfective stems, as in (i) where it co-occurs with the LP *na*- and in (ii) with the cumulative SLP *na*- (cf. Romanova 2004: 264):

(i) a. [po-[na-[pisa]^l]^p]^p-t’ b. [po-[na-[brosa]^l]^p]^p-t’
DISTR.on-write_{INF} DISTR-CUMthrow_{INF}

Recall, however, that aspectual selection is not the only characteristic that makes the distributive *po*- different from other SLPs. The distributive *po*- can attach on top of other SLPs, but other SLPs cannot attach on top of *po*-, nor on top of each other (see section 3 and footnote 3). Therefore, if the hypothesis that the distributive *po*- is a separate head located above other SLPs is correct, it explains not only the relative order of prefixes, but also exceptional behaviour of the distributive *po*- with respect to aspectual selection: if *po*- does not occupy the same position as true SLPs, it is not predicted to obey the same constraints. The class of SLPs, then, is kept maximally uniform and consistent.

6. The fifth argument: imperfectivization

The next argument has to do with the observation that ITMPs differ from SLPs as to their position with respect to the secondary imperfective markers *-yva-* /*-ivaj-*/, *-va-* /*-vaj-*/, *-a-* /*-aj-*/. Normally, the secondary imperfective attaches below SLPs, as in the following example:

- (21) a. [**na**-[[**za-pis**]^P-yva]^l]^P-t' diskov
CUMbehind-write_{IPFV-INF} CD_{GEN.PL}
 'record^P a lot if CDs'
 b. [ExtP **na-** ... [AspP -yva- [VP **za-write** CDs]]]

In (21), the perfective stem *za-pisa-* 'record' first merges with *-yva-* and yields an imperfective stem *za-pis-yva-*, which in turn merges with the cumulative SLP *na-* creating a new perfective stem *na-za-pis-yva-*.

ITMPs exhibit radically different behavior. They obligatorily merge below *-yva-*, as examples in (22)-(24) illustrate:

- (22) a. [**do/pere**-[pisa]^l]^P-t' b. [[**do/pere**-[pis]^l]^P-yva]^l-t'
CMP/RPTwrite_{INF} CMP/RPTwrite_{IPFV-INF}
 'complete writing^P/re-write^P' 'complete writing^l/re-write^l'
 c. *[[**do/pere**-[[pis]^l-yva]^l]^P-t'
CMP/RPTwrite_{IPFV-INF}
 'complete writing^P/re-write^P'
- (23) a. [**do**-[da]^P]^P-t' b. [[**do**-[da]^P]^P-va]^l-t' c. *[[**do**-[[da]^P-va]^l]^P-t'
CMPgive_{INF} CMPgive_{IPFV-INF} CMPgive_{IPFV-INF}
 'complete giving^P' 'complete giving^l' 'complete giving^P'
- (24) a. [**do/pere**-[za-pisa]^P]^P-t' b. [[**do/pere**-[za-pis]^P]^P-yva]^l-t'
CMP/RPTbehind-write_{INF} CMP/RPTbehind-write_{IPFV-INF}
 'complete recording^P/re-record^P' 'complete recording^l/re-record^l'
 c. *[[**do/pere**-[[za-pis]^P-yva]^l]^P-t'
CMP/RPTbehind-write_{IPFV-INF}
 'complete recording^P/re-record^P'

In (22a), ITMPs attach to a simplex imperfective, in (23a) to a simplex perfective, and in (24a) to a prefixed perfective stem. This derives perfective stems that undergo further imperfectivization in (b) examples in (22)-(24). Crucially, alternative derivations in (c) examples where perfective stems first merge with the secondary imperfective and then attach *do-* or *pere-* are all ill-formed. Verbs like *do-da-va-t'* and *pere-zapis-yva-t'* can only be imperfective, signaling that ITMPs, unlike SLPs, must merge before imperfectivization.

Consider also a minimal pair showing an SLP and an ITMP combined with the same stem. In (25a), the superlexical cumulative prefix *na-* is attached to the imperfectivized stem *za-bi-va-*, the resulting cumulative verb being perfective. In contrast, the intermediate prefix *do-* is attached to the non-imperfectivized stem *za-bi-*, the imperfective morpheme being merged later. The overall stem *do-za-bi-va-* is thus imperfective. Structure of (25a-b) is represented in (26a-b).

- (25) a. Vasja [na-[[za-bi]^P-va]^I]^P-l gvozd-ej v sten-u.
 V. CUMbehind-hit_{IPFV-PST:M} nail_{GEN:PL} in wall_{ACC}
 ‘Vasja hammered^P a lot of nails into the wall.’
- b. Vasja [[do-[za-bi]^P]^P-va]^I-l gvozd-i v sten-u.
 V. CMPbehind-hit_{IPFV-PST:M} nail_{ACC:PL} in wall_{ACC}
 ‘V. was completing hammering^I nails into the wall.’
- (26) a. [ExtP na- [AspP -va- [vP V. za-hit nails into the wall]]]
 b. [AspP -va- [ItmpP do- [vP V. za-hit nails into the wall]]]

Finally, given the above observations, we can expect that if a stem contains both an ITMP and SLP, the former will merge below, while the latter above *-yva-*. This expectation is borne out, as (27)-(28) demonstrate:

- (27) Vasja [po-[pere-[za-pis]^P]-yva]^I]-l diski.
 V. DELIM-RPTbehind-write_{IPFV-PST:M} CD_{ACC:PL}
 ‘Vasja spent some time re-recording CDs (and went home).’
- (28) [ExtP po- [AspP -yva [ItmpP pere- [vP Vasja za-write- CDs]]]]

There is every reason to conclude, therefore, that the position of *do-* and *pere-* with respect to the secondary imperfective *-yva-* provides an independent evidence for establishing the main claim of this paper: *do-* and *pere-* are structurally distinct from other types of prefixes.

7. The sixth argument: nominalization

In the literature, it has been argued extensively that SLPs do not form deverbal nouns (Babko-Malaya 1999, Svenonius 2004a, Pazelskaya, Tatevosov, to appear). Whereas nouns like *ot-kry-ti-e* and *ot-kryva-ni-e* ‘opening’ derived from lexically prefixed verbs *ot-kry-t* ‘open^P’ and *ot-kryva-t* ‘open^I’ are readily available in Russian, corresponding nouns from superlexically prefixed verbs are systematically ungrammatical, cf.

**na-ot-kryva-ni-e* from *na-ot-kryva-t* ‘open a lot’ and **po-ot-kryva-ni-e* from *po-ot-kryva-t* ‘open for a while’.

To the extent this generalization is correct, it does not hold for *do-* and *pere-*. Take the pair of stems *na-zabiva-* and *do-zabiva-* from (25) as an example again. It turns out that the latter can produce a deverbal noun in *-nie* /-nij-o/, but the former cannot:

- (29) a. ***na-za-biva-ni-e** gvozdej b. **do-za-biva-ni-e** gvozdej
CUMinto-hit_{IPFV-NMN-NOM}nail_{GEN.PL} CMPinto-hit_{IPFV-NMN-NOM} nail_{GEN.PL}
‘hammering a lot of nails’ ‘completing hammering nails’

(29a-b) suggest that a maximal constituent that allows for nominalization in Russian contains ItmP but excludes ExpP, as represented in (30a-b). This indicates again that the position for *do-* is below that of *na-*.

- (30) a. *_{[NP [N-nij-]]} [_{ExpP} **na-** [_{AspP} -va- [_{vP} PRO **za**-hit nails]]]]
b. _{[NP [N-nij-]]} [_{AspP} -va- [_{ItmP} **do-** [_{vP} PRO **za**-hit nails]]]]

If a maximal projection that allows for nominalization in Russian is AspP (as independently argued in Pazelskaya, Tatevosov, to appear), SLPs that attach above AspP (e.g. *na-* in (29a)) are not expected to form deverbal nouns. For ITMPs, which, by hypothesis, merge below AspP (see section 6), deverbal nouns are predicted to be readily available. As (29)-(30) indicate, this prediction is borne out precisely.

Consider also a minimal pair from Svenonius 2004a: 240 in which two homonymous verbs *pere-smotret* differ as to the interpretation of the prefix *pere-*: the repetitive *pere-* yields the meaning ‘look again, re-consider’, whereas the distributive *pere-* creates a verb meaning ‘look at one by one’. If the repetitive *pere-* is an intermediate prefix, while the distributive *pere-* is an SLP, we can expect, again, that the former but not the latter is able to produce a nominalization. As (31a-b) show, this is indeed the case: the deverbal noun *peresmotrenie* cannot have the distributive interpretation in (31b).

- (31) a. **pere-smotre-ni-e** b. ***pere-smotre-ni-e**
RPTlook.at_{NMN-NOM} DISTRlook.at_{NMN-NOM}
‘looking again, re-considering’ ‘looking at one by one’

Assuming that a nominalization can maximally contain AspP, and the distributive *pere-* is outside AspP, while the repetitive *pere-* is inside, accounts for (31a-b) in a principled way.

It should be pointed out, finally, that deverbal nouns in *-nie* are not

the only type of nominalization that separate ITMPs from other prefixes. Nominals in *-k-* pattern with *nie-* nominals as to the distribution of SLPs and ITMPs. (32a-b) exemplify this type of nominals derived from the delimitative verb *po-risovat* ‘draw for a while’ and repetitive *pere-risovat* ‘draw again’:

- (32) a. ***po-risov-k-a** kartinki b. **pere-risov-k-a** kartinki
DELIMdraw_{NMN-NOM} picture_{GEN} RPTdraw_{NMN-NOM} picture_{GEN}
 ‘drawing a picture for a while’ ‘drawing a picture again’
- (33) a. *[_{NP} [_{N-k-}] [_{ExtP} **po-** [_{AspP} ∅ [_{VP} ... draw picture ...]]]]
 b. [_{NP} [_{N-k-}] [_{AspP} ∅ [_{ItmP} **pere-** [_{VP} ... draw picture ...]]]]

(32a-b) show that the repetitive but not the delimitative verb can form a deverbal noun in *-k-*. (32) patterns clearly with (29), and this fact suggests that we are not dealing with a mysterious idiosyncrasy of one type of deverbal noun, but with a fully systematic constraint characterizing the whole class of nominalizations, on the one hand, and the whole class of prefixed verbal stems, on the other. Therefore, if nouns in *-nie* and *-k-* in are formed in a similar way (as in (30) and (33)), their distribution provides us with an independent support for identifying ITMPs as a separate class of prefixes.

8. Intermediate prefixes vs. *vP*

The evidence presented above suggests that ITMPs merge below SLPs and the secondary imperfective *-yva*:

- (34) [_{ExtP} SLPs [... [_{AspP} -yva- [... [_{ItmP}* **ITMPs** [... [_{VP} ... LPs ...]]]]]]]]

One question not addressed so far is how ITMPs are located with respect to *v*. I suggest that a promising strategy of finding an answer is to look at scopal characteristics of ITMPs. The main observation here is that *pere-* and *do-* are ambiguous between *repetitive* and *restitutive* readings in much the same way as adverbs like ‘again’ (von Stechow 1996, Tenny 2000, among many others). Thus, *Vasja pere-pisal pis'mo* ‘Vasja re-wrote a/the letter’ and *Vasja do-pisal pis'mo* ‘Vasja completed writing a/the letter’ are compatible with scenarios in (35) and (36) respectively:

- (35) Scenario 1 (repetitive): Vasja had written a letter, but was unhappy with what he wrote and decided to re-write it.
 Scenario 2 (restitutive): Petja had written a letter, but Vasja was unhappy with what he wrote and decided to re-write it.

- (36) Scenario 1 («repetitive»): It was Vasja who started writing a letter earlier.
 Scenario 2 («restitutive»): It was another person who started writing a letter earlier.

Assuming, with von Stechow 1996, that the repetitive vs. restitutive distinction reflects the position of the scope-taking element with respect to *v*, the restitutive reading obtains if *pere-* and *do-* merge before the agent is introduced, that is, before *vP* is projected. On the restitutive reading, *pere-* and *do-* only take scope over VP, indicating that it is the change of state of the patient that happens again or is completed:

- (37) [... [_{vP} Vasja [_{ITMP} **pere-/do-** [_{VP} write letter]]]]

On the repetitive reading represented in (38) *pere-* and *do-* merge above *vP* hence take scope over the whole event including the agent's activity:

- (38) [_{ITMP} **pere-/do-** [_{vP} Vasja [_{VP} write letter]]]

Apart from identifying a position of intermediate prefixes with respect to *vP*, scopal facts provide additional evidence that *do-* and *pere-* form a natural class: it is easy to show that other classes of prefixes do not produce repetitive/restitutive ambiguity.

9. Summary and conclusion

It has been commonly recognized that verbal prefixes in Slavic languages fall into two types, lexical and superlexical. In this paper, I have argued for a more articulated hierarchical structure, whereby there is a separate projection for intermediate prefixes, distinct from both LPs and SLPs. I examined the distribution of prefixes *do-* and *pere-* and presented six pieces of evidence (meaning, multiple prefixation, stacking, aspectual selection, secondary imperfectivization, nominalization,) supporting their intermediate status. This evidence is summarized in Table 2.

<TABLE 2 AROUND HERE>

Finally, scopal possibilities available for intermediate prefixes show that they can originate either above or below *vP*.

Besides, I have shown that the proposed analysis has a few welcome consequences for our understanding of SLPs. If ITMPs are kept distinct from SLPs, much clearer picture emerges as to what are genuine properties of superlexicals: they always select for imperfective stems, always require imperfectivization to combine with prefixed perfective stems, and consistently disallow nominalization and stacking.

References

- Babko-Malaya, Olga. 1999. Zero Morphology: a study of aspect, argument structure and case. Doctoral Dissertation, The State University of New Jersey, New Brunswick, New Jersey.
- Di Sciullo, Anna-Maria, and Roumyana Slabakova. 2005. Quantification and aspect. In *Perspectives on aspect*, eds. Henk Verkuyl, Henriette de Swart, and Angeliek van Hout, 61-80. Dordrecht: Springer.
- Filip, Hana. 1999. *Aspect, eventuality types and noun phrase semantics*. New York, London: Garland Publishing.
- Filip, Hana. 2005. Measures And Indefinites. In *Reference and Quantification: The Partee Effect*, eds. Gregory N. Carlson and Francis Jeffrey Pelletier, 229-289. Stanford, California: CSLI Press.
- Matushansky, Ora. 2007. Deriving the Russian secondary imperfective. Paper presented at the Workshop on problems with surface-based Generalizations, Paris, October 8-9.
- Pazelskaya, Anna, and Sergei Tatevosov. To appear. Otglagol'noje imja i struktura ruskogo glagola [Deverbal nouns and the structure of Russian verb]. In *Issledovanija po glagol'noj derivatsii*, Vladimir Plungian and Sergei Tatevosov (eds.), 325-351. Moscow: Jazyki Slavjanskikh Kultur.
- Pereltsvaig, Asya. 2002. On the semantics of Russian tense and aspect morphology. Ms., Stanford University.
- Pereltsvaig, Asya. 2004. Aspect lost, aspect regained: restructuring of aspectual marking in American Russian. In *Aspectual Inquiries*, eds. Paula Kempchinsky and Roumyana Slabakova, 369-395. Dordrecht: Springer.
- Ramchand, Gillian. 2004. Time and the event: The semantics of Russian prefixes. *Nordlyd. Special issue on Slavic prefixes* 32: 323-361.
- Romanova, Eugenia. 2004. Superlexical vs. lexical prefixes. *Nordlyd. Special issue on Slavic prefixes* 32: 255-278.
- Romanova, Eugenia. 2006. Constructing perfectivity in Russian. Ph.D. dissertation, University of Tromsø.
- Svenonius, Peter. 2004a. Slavic prefixes inside and outside VP. *Nordlyd. Special issue on Slavic prefixes* 32: 205-253.
- Svenonius, Peter. 2004b. Russian prefixes are phrasal. Ms., University of Tromsø. Available at <http://ling.auf.net/lingBuzz/000043>.
- von Stechow, Arnim. 1996. The different readings of *wieder* 'again': A structural account. *Journal of Semantics* 13: 87-138.
- Tenny, Carol. 2000. Core events and adverbial modification. In *Events as grammatical objects, from the combined perspectives of lexical semantics, logical semantics and syntax*, eds. James Pustejovsky and Carol Tenny, 7-36. Stanford, California: CSLI Press.

Table 1. Inventories of SLPs

Prefix	Meaning	Example	Babko-Malaya 1999	Svenonius 2004b	Ramchand 2004	Romanova 2006
<i>Za-</i>	inceptive	<i>za-pet</i> 'start singing'	+	+	+	+
<i>Po-</i>	delimitative	<i>po-giljat</i> 'walk for a while'	+	+	+	+
<i>Na-</i>	cumulative	<i>na-brat</i> 'take a lot'	—	+	+	+
<i>Pere-</i>	distributive	<i>pere-lovit</i> 'catch one by one'	—	+	—	+
<i>Ot-</i>	terminative	<i>ot-rabotat</i> 'finish working'	—	+	—	+
<i>Pro-</i>	perdurative	<i>pro-sidet</i> 'sit for a long time'	+	—	—	—
<i>Iz-</i>	completive	<i>iz-ranit</i> 'wound all over'	—	+	—	—
<i>Do-</i>	terminative	<i>do-pisat</i> 'complete writing'	—	—	+	—
<i>Po-</i>	distributive	<i>po-brosat</i> 'throw one by one'	—	—	—	+
<i>Pri-</i>	attenuative	<i>pri-otkryt</i> 'open slightly'	—	—	—	+
<i>Pod-</i>	attenuative	<i>pod-zabyt</i> 'forget slightly'	—	—	—	+

Table 2. ITMPs vis-à-vis LPs and SLPs

	SLP	ITMP	LP
Meaning	compositional	compositional	normally non-compositional
Multiple prefixation	above ITMPs and LPs	Below SLPs, above LPs	below SLPs and ITMPs
Aspectual selection	imperfective	no restrictions	lexical restrictions
Position w.r.t. the secondary imperfective	normally above	always below	always below
Nominalization	not allowed	Allowed	allowed
Stacking	not allowed	Allowed	not allowed